

CLAIMS

1. A back pack, comprising:

2 a base member for facing the back of a wearer having a rear wall
and a raised peripheral rim, at least the peripheral rim being of flexible
4 material;

 an outer shell of rigid material for facing away from the back of the
6 wearer, the base member and outer shell together defining an enclosure
for containing items to be carried;

8 the outer shell having an outer face and an integral peripheral rim
bent towards the base member; and

10 a zipper fastener secured between the peripheral rims of the base
member and outer shell and extending around at least a major portion of
12 the rims for releasably securing the base member and shell in a closed
position and allowing access to the enclosure when released.

2. The back pack as claimed in claim 1, wherein the peripheral rims have
2 a lower end, opposite sides, and an upper end, the zipper fastener extends
around the sides and upper end of the peripheral rims, and a flexible
4 member secures the lower ends of the rims together, whereby the outer
shell and base member may be rotated away from one another into a fully
6 open condition when the zipper fastener is released.

3. The back pack as claimed in claim 2, including a releasable retaining
2 assembly between the base member and outer shell for holding the back
pack in a partially open position.

4. The back pack as claimed in claim 1, including a first line of stitching
2 securing one side of the zipper fastener directly to the rigid rim of the

4 outer shell, and a second line of stitching securing the other side of the zipper fastener directly to the flexible rim of the base member.

2 5. The back pack as claimed in claim 1, wherein the rear wall of the base member has inner and outer layers of flexible material and an insert panel of rigid material between the inner and outer layers, the rigid insert panel 4 being self-supporting and capable of retaining its shape.

2 6. The back pack as claimed in claim 5, wherein the insert panel has a series of spaced ribs.

2 7. The back pack as claimed in claim 5, wherein the insert panel is curved to follow the curvature of a wearer's back and has a concave outer face facing the wearer's back when the back pack is carried.

2 8. The back pack as claimed in claim 7, including a layer of foam material between the insert panel and outer layer of the rear wall.

2 9. The back pack as claimed in claim 1, wherein the outer shell is of fiber-reinforced plastic material.

2 10. The back pack as claimed in claim 1, wherein shoulder straps are secured to the rear wall of the base member for supporting the back pack on the wearer's shoulders, the back pack having an upper end, lower end, 4 and opposite sides, a carrying handle being secured to the upper end of the back pack.

11. The back pack as claimed in claim 1, wherein the outer shell has an
2 upper end, a lower end, and opposite sides, the outer face of the shell
having a convex curvature from the upper end to the lower end.

12. The back pack as claimed in claim 11, wherein the outer face of the
2 shell has a raised, aerodynamically shaped hump adjacent the upper end
of the shell and extending downwardly towards the lower end of the shell.

13. The back pack as claimed in claim 1, including an add-on bag of
2 smaller dimensions than the back pack for releasably securing over the
outer shell.

14. The back pack as claimed in claim 13, wherein the add-on bag is of
2 flexible material and has two spaced upper straps and two spaced lower
straps, each strap having a releasable fastener, the rear wall of the base
4 member having attachment members for said releasable fasteners,
whereby each strap can be extended from the outer shell to the rear wall
6 with the add-on bag placed over the outer shell and the fasteners secured
to the respective attachment members in a four point attachment system.

15. The back pack as claimed in claim 1, wherein the outer face of the
2 outer shell is covered with a fabric material layer.

16. A back pack, comprising:
2 a base member having a rear wall for facing the back of a wearer
and a peripheral rim;
4 an outer shell of rigid material having an outer face and a peripheral
rim secured to the base member to form an enclosure between the base
6 member and outer shell;

8 a releasable fastener mechanism for releasably securing the
peripheral rims of the base member and outer shell together around part of
the periphery and allowing access to the enclosure;
10 the outer shell having an upper end, a lower end, and opposite
sides, the upper end facing the upper end of a wearer's back when the
12 back pack is worn; and
the outer face of the outer shell having an outwardly projecting,
14 aerodynamically shaped hump extending from the upper end towards the
lower end and raised outwardly from the remainder of the outer face, the
16 hump having a first portion extending outwardly from the outer face to a
first position, and a second portion curving gradually inwardly from the
18 first position to meet the outer face.

17. The back pack as claimed in claim 16, wherein the outer shell is of
2 fiber-reinforced plastic material.

18. The back pack as claimed in claim 16, wherein the releasable fastener
2 mechanism comprises a zipper fastener having a first half secured directly
to the rim of the rigid outer shell by stitching and a second half secured
4 directly to the rim of the base member by stitching.

19. The back pack as claimed in claim 18, wherein the zipper fastener
2 extends around the sides and upper end of the outer shell rim, and a
pliable connecting member permanently secures the lower end of the
4 outer shell to a corresponding portion of the base member, whereby the
outer shell and base member can be rotated away from one another at
6 their upper ends into a fully open position when the zipper fastener is
completely opened.

20. The back pack as claimed in claim 16, wherein the first portion of the hump is generally flat and the second portion has a curved, downwardly tapering surface.